

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with attorney Kenneth D. Springer on April 17th, 2009.

3. The application has been amended as follows:

Claim 1. (Currently Amended) A control mechanism for an endoscope having a handle, and a flexible shaft extending from the handle and having a distal or operative end which is inserted into a body through a body cavity, the distal end of the shaft including an image receiving sensor, the control mechanism comprising:

a frame;

first and second movement transmission devices for causing adjustment of a distal end of the flexible shaft;

a first control knob;

a first rotatable pinion shaft rotatably mounted on said frame and fixed to said first control knob, said first pinion shaft engaging with said first movement transmission device such that upon rotation of said first control knob, said first pinion shaft rotates and said first movement transmission device is actuated;

a second control knob rotatable independent of said first control knob;

a second rotatable pinion shaft fixed to said second control knob and coaxial with said first pinion shaft, said second pinion shaft engaging with said second movement transmission device such that upon rotation of said second control knob, said second pinion shaft rotates and said second movement transmission device is actuated;

an intermediate shaft arranged at least partially inside of said second pinion shaft and at least partially around said first pinion shaft, said intermediate shaft being arranged to reduce

Art Unit: 3739

transmission of torque between said first and second pinion shafts such that rotation of one of said first and second pinion shafts does not cause rotation of the other of said first and second pinion shafts, said intermediate shaft being axially unrestrained such that movement of said intermediate shaft in an axial direction is possible;

first ball bearings arranged between said intermediate shaft and one of said first and second pinion shafts for enabling rotation of said one of said first and second pinion shafts relative to said intermediate shaft.

14. (Currently Amended) A control and sealing mechanism for an endoscope having a handle, and a flexible shaft extending from the handle and having a distal or operative end which is inserted into a body through a body cavity, the distal end of the shaft including an image receiving sensor, the control and sealing mechanism comprising:

a frame;

first and second movement transmission devices for causing adjustment of a distal end of the flexible shaft;

a first control knob;

a first rotatable pinion shaft rotatably mounted on said frame and fixed to said first control knob, said first pinion shaft engaging with said first movement transmission device such that upon rotation of said first control knob, said first pinion shaft rotates and said first movement transmission device is actuated;

a second control knob rotatable independent of said first control knob;

a second rotatable pinion shaft fixed to said second control knob and coaxial with said first pinion shaft, said second pinion shaft engaging with said second movement transmission device such that upon rotation of said second control knob, said second pinion shaft rotates and said second movement transmission device is actuated;

an intermediate shaft arranged at least partially inside of said second pinion shaft and at least partially around said first pinion shaft, said intermediate shaft being axially unrestrained such that movement of said intermediate shaft in an axial direction is possible;

at least one O-ring arranged in contact with said intermediate shaft and one of said first and second pinion shafts such that torque transmitted by said first or second pinion shaft to said at least one O-ring is applied to said intermediate shaft and transmission of torque between said

Art Unit: 3739

first and second pinion shafts is reduced, said at least one O-ring being arranged to provide a rotary seal between said intermediate shaft and said one of said first and second pinion shafts; and

first ball bearings arranged between said intermediate shaft and one of said first and second pinion shafts for enabling rotation of said one of said first and second pinion shafts relative to said intermediate shaft.

4. The following is an examiner's statement of reasons for allowance:

5. Applicant's arguments, see Appeal Brief, filed January 5th, 2009, with respect to the subject matter of claims 1 and 14 have been fully considered and are persuasive. Regarding claims 1 and 14, the prior art references of Krauter, van der Heide, and Opie neither alone or in combination teach a control mechanism (A control and sealing mechanism) comprising an "intermediate shaft arranged at least partially inside of said second pinion shaft and at least partially around said first pinion shaft, said intermediate shaft being arranged to reduce transmission of torque between said first and second pinion shafts such that rotation of one of said first and second pinion shafts does not cause rotation of the other of said first and second pinion shafts, said intermediate shaft being axially unrestrained such that movement of said intermediate shaft in an axial direction is possible". Although van der Heide discloses an intermediate shaft 6a, the Applicant's have pointed out that the intermediate shaft 6a does not meet the limitations of claim 1 wherein claim 1 specifically requires the intermediate shaft to be axially unrestrained such that movement of said intermediate shaft in an axial direction is possible. Van der Heide positively discloses that intermediate shaft 6a is a fixed sleeve therefore rendering it axially restrained. By this Examiner's amendment, this limitation of claim 1 has also been incorporated in claim 14.

Art Unit: 3739

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALIREZA NIA whose telephone number is (571)270-3076. The examiner can normally be reached on Mo.-Fri.-7:30 AM-5:00 PM EST-Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C. Dvorak can be reached on 571-272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Linda C Dvorak/
Supervisory Patent Examiner, Art Unit
3739

/A. N./
Examiner, Art Unit 3739

Application/Control Number: 10/530,619

Page 6

Art Unit: 3739

Alireza Nia

April 20th, 2009